

### **AMENDMENTS TO THE DRAWINGS**

The attached two sheets of drawings include changes to Figs. 3A-3B and Fig. 5. These sheets replace the original sheets including only Figs. 3A-3B and Fig. 5, respectively. In Figs. 3A-3B, the vertical reference lines have been added back in since they were on the original figures and inadvertently left out on the formal drawings. In Fig. 5, the "square-marked" area and the "hatched" area, referred to in paragraph [0037] of the specification, have been clarified since the previously submitted black and white copy of Fig. 5 did not clearly indicate these areas. No new matter has been added.

Attachment:           Two Replacement Sheets  
                          Two Annotated Sheets Showing Changes

## **REMARKS**

### **Claim status**

Claims 1-26 were pending in the case at the time of the current Office Action. Claims 4 and 12-13 are cancelled herein. Claims 1-3, 5-11, and 14-26 are currently amended herein to fix the 35 U.S.C. 101 problems and the 35 U.S.C. 112 problems, as well as to correct minor informalities. Claims 1-3, 5-11, and 14-26 are currently pending in the application.

### **Priority**

The Examiner has noted that applicant has not filed a certified copy of the 102 45 852.9 application as required by 35 U.S.C. 119(b).

Applicant respectfully submits that such a certified copy was submitted on July 1, 2004. Applicant provides a copy of the stamped transmittal letter herewith along with an artifact sheet which is believed to likely be further proof that the certified priority document was received at the USPTO but was not scanned in.

Applicant respectfully requests the Examiner to verify and confirm receipt of the priority document in the next Office action.

### **Drawings**

Figs. 3A-3B and Fig. 5 have been amended herein to clarify certain aspects of the drawings and to correct minor problems with the drawings as described above herein. No new matter has been added. Applicant respectfully requests that the amended Figures be entered.

### **Specification objections**

In the current Office action, the Examiner is requiring appropriate correction of certain informalities including certain grammatical errors.

Applicant has amended several paragraphs of the specification to correct said informalities and grammatical errors. No new matter has been added.

Applicant respectfully requests that the specification amendments be entered and that the objections be withdrawn.

### Section 101 rejections

In the current Office action, claims 1-7 and 11-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Specifically, the claiming of structures being in contact with or implanted within the body amounts to an inferential recitation of the body, which renders these claims non-statutory.

Applicant respectfully traverses the foregoing rejections in view of the above pending claims and for reasons set forth hereafter.

Applicant assumes that the particular language that the Examiner is referring to was found in claim 1 which stated, “an electrode arranged floatingly in the atrium” and possibly “a circuit for stimulating the atrial myocardium”.

Claim 1 has been amended herein to correct this language.

Claim 1 now recites a cardiac pacemaker arrangement comprising:

- at least one floating atrial electrode;
- a circuit for perceiving atrial signals;
- a circuit for atrial myocardium stimulation by means of the floating atrial electrode; and
- a wall-located electrode, and

wherein stimulation is effected by means of the wall-located electrode if the circuit, upon perceiving atrial signals, does not detect high-frequency irregularities such as auricular fibrillation or atrial tachycardias as on the basis of inadmissibly high signal frequencies, and wherein stimulation is effected by means of the floating atrial electrode if the circuit, upon perceiving atrial signals, detects said high-frequency irregularities.

It is respectfully submitted that the Examiner's rejection has been overcome by the amendments to claim 1. Claim 1 no longer claims structures being in contact with or implanted within the body.

Therefore, in view of at least the foregoing, it is respectfully submitted that independent claim 1 is now directed to statutory subject matter, and it is respectfully submitted that independent claim 1 defines allowable subject matter. Also, since claims 2-7 and 11-25 depend

either directly or indirectly from claim 1, it is respectfully submitted that claims 2-7 and 11-25 also are directed to statutory subject matter and are allowable as well. Applicant respectfully requests that the rejection of claims 1-7 and 11-25 under 35 U.S.C. 101 be removed.

### **Section 112 rejections**

In the current Office action, claims 3-5 and 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 3 and 11, the Examiner is unsure if the two or more floating electrodes are in addition to the one electrode as claimed in claim 1 or inclusive of the electrode.

As to claims 4 and 12-13, the Examiner is unsure if the single wall-located electrode is in addition to the other single wall-located electrode as claimed in claim 1 or inclusive.

As to claims 5 and 14-16, the claims are vague and it is unclear which structure performs the claimed function.

Applicants respectfully traverse the foregoing rejections in view of the above pending claims and for reasons set forth hereafter.

Claim 1 has been amended herein to recite a cardiac pacemaker arrangement comprising:

at least one floating atrial electrode;

a circuit for perceiving atrial signals;

a circuit for atrial myocardium stimulation by means of the floating atrial electrode; and

a wall-located electrode, and

wherein stimulation is effected by means of the wall-located electrode if the circuit, upon perceiving atrial signals, does not detect high-frequency irregularities such as auricular fibrillation or atrial tachycardias as on the basis of inadmissibly high signal frequencies, and

wherein stimulation is effected by means of the floating atrial electrode if the circuit, upon perceiving atrial signals, detects said high-frequency irregularities.

Applicant respectfully submits that the language “at least one floating atrial electrode” in the amended claim 1 and the cancellation of claims 4 and 12-13 overcomes the Examiner’s

rejections of claims 3, 11, 4, and 12-13 and that the rejections of those claims under 35 U.S.C. 112 should be removed.

Applicants respectfully submit that the amended claims 5 and 14-16 overcome the rejections of claims 5 and 14-16 and that the rejection of these claims under 35 U.S.C. 112 should be removed.

### **Section 102 rejections**

In the current Office action, claims 1, 3-9, and 11-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Peterson et al. (U.S. Patent 5,846,263).

Applicants respectfully traverse the foregoing rejections in view of the above pending claims and for reasons set forth hereafter.

Independent claim 1 recites a cardiac pacemaker arrangement comprising:

at least one floating atrial electrode;

a circuit for perceiving atrial signals;

a circuit for atrial myocardium stimulation by means of the floating atrial electrode; and

a wall-located electrode, and

wherein stimulation is effected by means of the wall-located electrode if the circuit, upon perceiving atrial signals, does not detect high-frequency irregularities such as auricular fibrillation or atrial tachycardias as on the basis of inadmissibly high signal frequencies, and

wherein stimulation is effected by means of the floating atrial electrode if the circuit, upon perceiving atrial signals, detects said high-frequency irregularities.

Independent claim 8 recites a method of controlling a cardiac pacemaker wherein atrial signals are perceived by means of an electrode arranged in the atrium of the heart and are evaluated in a circuit of the cardiac pacemaker, and wherein in dependence on the perceived signals the circuit triggers stimulation of the myocardium by means of an electrode arranged in the atrium of the heart,

and wherein the atrial signals are perceived by means of a floating electrode,

and wherein stimulation of the myocardium is basically effected by means of a wall-located electrode, and

if the atrial signals are evaluated by the circuit as tachycardias or auricular fibrillation, stimulation of the myocardium is effected by means of a floating electrode.

It is respectfully submitted that Peterson et al. (U.S. Pat. No. 5,846,263), hereinafter Peterson, does not teach or suggest the invention of independent claim 1 or independent claim 8. Even if the electrodes in Peterson identified by the Examiner as wall electrodes and floating electrodes is correct, which it is not clear to the Applicant that this assertion is correct, Peterson does not teach or suggest which electrode (floating or wall) to use for stimulation based on whether or not high-frequency atrial irregularities (e.g., tachycardias or auricular fibrillation) are detected. In particular, Peterson does not teach or suggest effecting stimulation with a wall electrode when perceiving atrial signals that are not of high-frequency irregularity, and effecting stimulation with a floating electrode when perceiving atrial signals that are of high-frequency irregularity, as in the claimed invention of claim 1. Further, Peterson does not teach or suggest that, if atrial signals are perceived by a floating electrode, stimulation is effected by a wall electrode, and if the atrial signals are evaluated as tachycardias or auricular fibrillation, stimulation is effected by a floating electrode, as in the claimed invention of claim 8.

In summary, Peterson does not teach or suggest a pacemaker which selects one of two atrial electrodes depending on the nature of the sensed atrial signal, the atrial electrodes including a wall electrode and a floating electrode.

Instead, Peterson simply describes varying the timing of atrial pacing pulses as a function of sensed atrial and ventricular events.

Therefore, in view of at least the foregoing, it is respectfully submitted that independent claim 1 and independent claim 8 are not anticipated by Peterson, and it is respectfully submitted that independent claim 1 and independent claim 8 define allowable subject matter. Also, since claims 3, 5-7, 9, 11, and 14-25 depend either directly or indirectly from claim 1 or claim 8, it is respectfully submitted that claims 3, 5-7, 9, 11, and 14-25 define allowable subject matter as well. Applicant respectfully requests that the rejection of claims 1, 3-9, and 11-25 under 35 U.S.C. 102(b) be removed.

**Section 103 rejections**

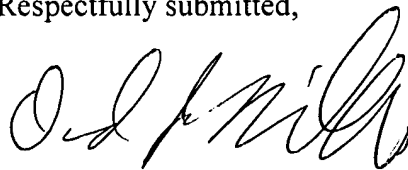
In the current Office action, claims 2, 10, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson.

Applicants respectfully traverse the foregoing rejections in view of the above pending claims and for reasons set forth hereafter.

As described above, Peterson does not teach or suggest the claimed inventions of independent claims 1 or 8 and, therefore, independent claims 1 and 8 define allowable subject matter. Since claims 2, 10, and 26 depend either directly or indirectly from independent claims 1 or 8, it is respectfully submitted that these claims define allowable subject matter as well. Applicant respectfully requests that the rejection of claims 2, 10, and 26 under 35 U.S.C. 103(a) be removed.

Accordingly, the applicant respectfully requests reconsideration of the rejections and objections based on at least the foregoing. After such reconsideration, it is urged that allowance of all pending claims will be in order.

Respectfully submitted,



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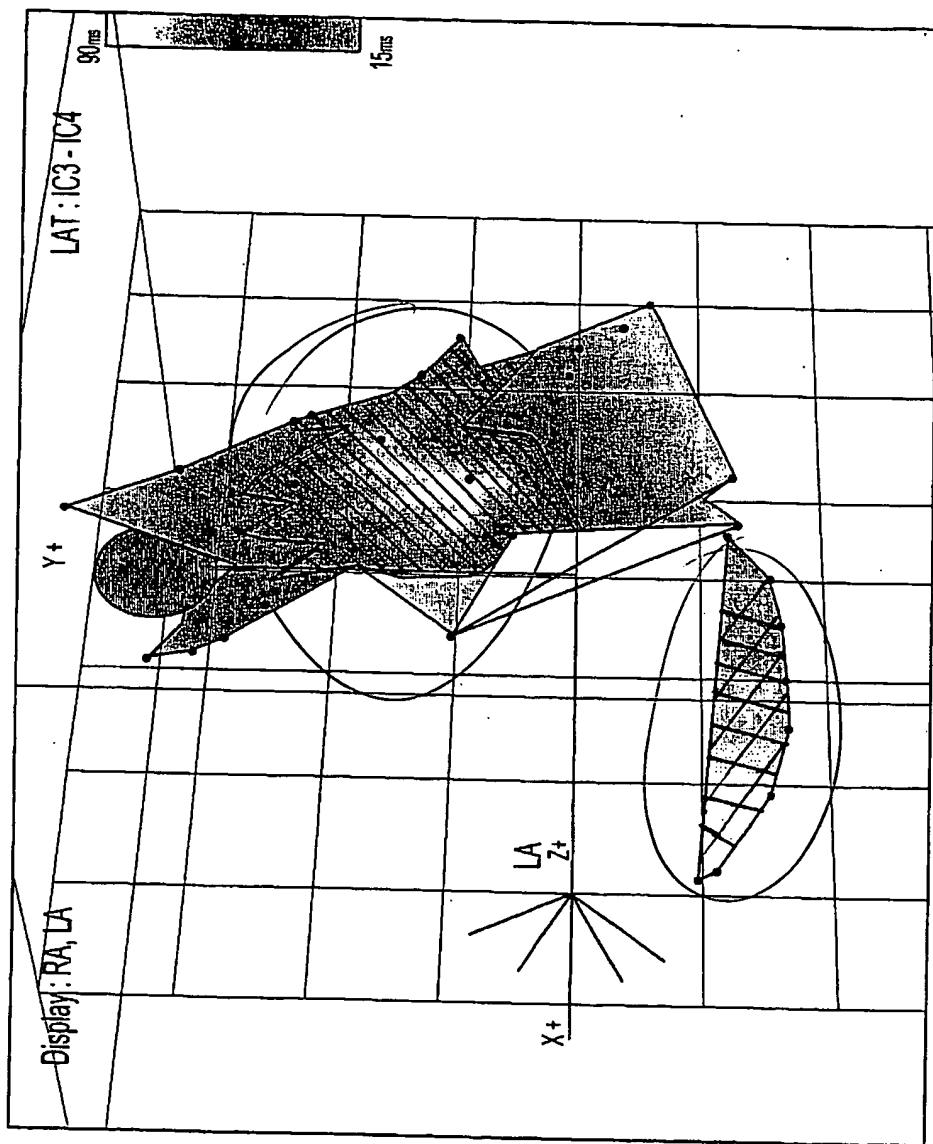
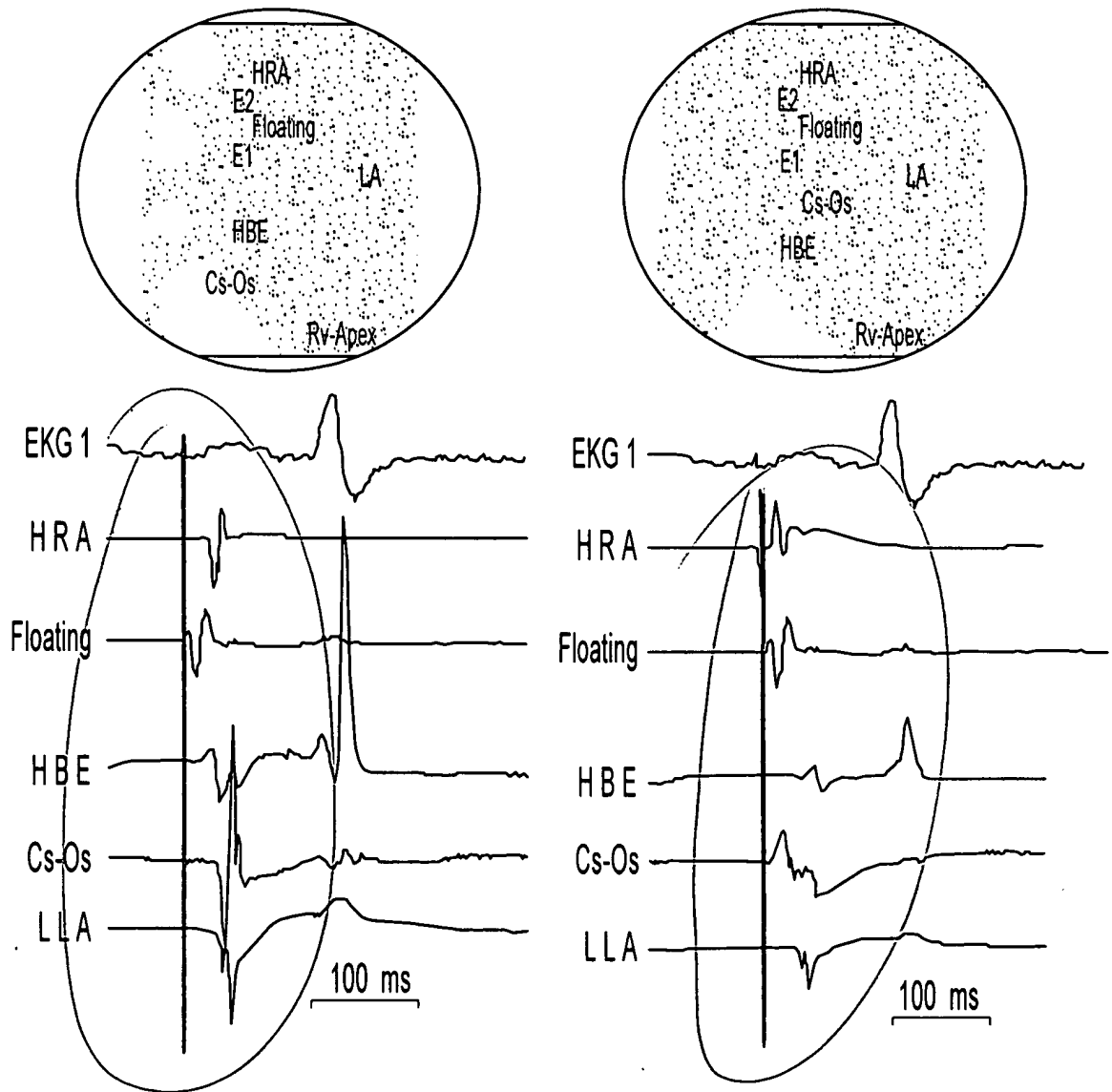


Fig. 5



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*Fig. 3A*

*Fig. 3B*